

Quick Mineral Identification

- **Light Color / Low Density Minerals**

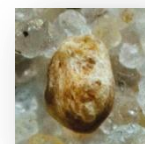
- *Quartz*: clear to tan, translucent (most common)
- *Feldspar*: white to tan, milky to opaque (not as common as Quartz)
- *Shell*: can be any color found in shells, may retain some characteristics of the shell (ridges, thinness, color on one side)



Quartz



Feldspar



Shell

- **Dark Color / High Density Minerals**

- *Garnet*: light pink to red, translucent (Garnet is the New York State mineral)
- *Staurolite*: dark orange to red, translucent (can be confused with Garnet)
- *Magnetite*: dark metallic, strongly magnetic*
- *Ilmenite*: iron-black to steel-grey, weakly magnetic*
- *Hornblende*: black, opaque*
- *Epidote*: yellow-green, translucent



Garnet



Staurolite



*Black
Minerals*



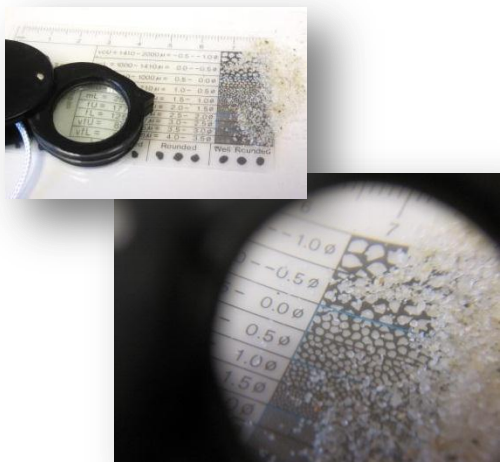
Epidote

- ***A note about identifying the black metallic minerals:**

These can often be difficult to identify visually, but the differing levels of magnetism helps to tell the difference between Magnetite, Ilmenite and Hornblende. See the next page for instructions on identification.

Quick Mineral Identification

Using a Hand Lens



- Sprinkle a small amount of sand on the grain size card near the size examples.
- Hold the hand lens up to your eye and slowly move the grain size card and sample up towards your eye until it comes into focus.
- Compare the sizes and determine which is the closest to your sand sample.

The Grain Card Explained

Letter Code Size Range

vcU	1410 – 2000 μ
vcL	1000 – 1410 μ
cU	710 – 1000 μ
cL	500 – 710 μ
mU	350 – 500 μ
mL	250 – 350 μ
fU	177 – 250 μ
fL	125 – 177 μ
vfU	88 – 125 μ
vfL	62 – 88 μ

- Units are micrometers (μm or μ)
- Classes of grain size explained:
 - vc = Very Coarse
 - c = Coarse
 - m = Medium
 - f = Fine
 - vf = Very Fine
- The letters U and L identify upper and lower ranges of the class

Example: grains that are vcL are in the lower (L) range of the very coarse (vc) class that has sizes between 1000 – 1410 μm (or 0.1 – 0.141 cm).

Magnetic Minerals



To tell the difference between Magnetite, Ilmenite and Hornblende:

- Pour a small amount of your sample into the plastic dish
- Take the magnet out of the sleeve
- Run the magnet along the outside of the plastic dish and underneath it (do not put the magnet in the sand directly)
 - **Magnetite** will be strongly attracted to the magnet and will move around with the magnet
 - **Ilmenite** will be slightly attracted to the magnet, but will not move with the magnet
 - **Hornblende** will not be attracted to the magnet

NOTE: If the sand is damp due to waves or recent rain, the magnet will not be strong enough to move the magnetic minerals. Visit the Park's Visitors Center and look at sand samples in the jars there.